

Sr. No.	Syllabus for - Officer Trainee-Quality Control / Operations
1	IUPAC nomenclature of organic molecules
2	Organic Chemistry/Reaction Mechanism: Structure and Reactivity
3	Organic Chemistry/Aliphatic Nucleophilic substitutions, Aromatic Electrophilic Substitutions
4	Organic Chemistry/Addition to Carbon–Carbon Multiple Bonds
5	Organic Chemistry/Elimination Reactions
6	Organic Chemistry/Stereochemistry/Alkylation and Acylation, Reductions
7	Organic Chemistry/Study of Organometallic compounds
8	Organic Chemistry/Oxidation, Methodologies in organic synthesis
9	Inorganic Chemistry / Wave mechanics
10	Chemical periodicity
11	Ores and minerals, Extractive metallurgy
12	Qualitative analysis of Inorganic Salts (Various Groups)
13	Inorganic Chemistry / Stereochemistry and Bonding
14	Inorganic Chemistry /Chemistry of transition elements
15	Inorganic Chemistry /Bioinorganic Chemistry/Electronic, Electric and Optical
16	Inorganic Chemistry/ behaviour of Inorganic materials
17	Chemistry of non – Transition elements
18	Organometallic Chemistry of transition elements/Metal – ligand equilibria in solution
19	Inorganic Chemistry/ Lanthanides and Actinides
20	Inorganic Chemistry/ Chemistry in Non- aqueous solvents/Nuclear and radiochemistry
21	Physical Chemistry/Introduction, revision of basic concepts
22	Nuclear chemistry & Radioactivity
23	Physical Chemistry / Laws of thermodynamics
24	Physical Chemistry /Ideal & Non Ideal Solutions, Rault's law
25	Electrochemistry: Nernst equation, Electrochemical cells, conductometric and potentiometric titrations.
26	Physical Chemistry/CHEMICAL KINETICS
27	Physical Chemistry / COLLOIDS AND MACROMOLECULES
28	Data analysis: Mean and standard deviation; absolute and relative errors
29	Physical Chemistry / Chemistry of polymerization

Sr. No.	Syllabus for - Officer Trainee-Quality Control / Operations
30	Analytical Chemistry / Errors and treatment of Analytical Chemistry
31	Analytical Chemistry / Chromatographic methods
32	Analytical Chemistry / Electroanalytical Techniques
33	Analytical Chemistry / Spectroscopy(Infra-red)-principles , applications, & instrumentation
34	Analytical Chemistry / Physical-electro chemistry-electrode potentials-Nernst Equation & Applications.
35	Analytical Chemistry / Theory of strong electrolytes.